

Appl. No.: 09/698,970
Amdt. Dated: September 16, 2004
Reply to Final Rejection of: July 28, 2004

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REMARKS/ARGUMENTS

Applicants note with appreciation that the Examiner has indicated that claim 17 is allowed. The Examiner rejected priorly presented claims 1-16 and 18-24 as unpatentable, 35 USC 103(a), over Ishii et al., patent 6,434,132, August 13, 2002 (hereinafter Ishii) in view of Monch et al., patent 6,304,745, October 16, 2001 (hereinafter Monch). In response thereto, applicants have amended independent claims 1, 13, 19, and 24 and dependent claims 10 and 22 to more clearly recite applicants' invention. Applicants have cancelled claims 2-3, 11-12, 16, 18, 20-21, and 23 to expedite prosecution of this application. Applicants have also cancelled claims 5, 9, and 14 because the limitations of these claims are now recited by claims 1, 10, and 13 respectively. Claims 6 and 7 have been amended in accordance with the changes made to claims 1 and 5. Lastly, new claim 25 has been added to replace prior claim 15, which has been cancelled.

Significantly, applicants' invention, as now more clearly recited by the amended claims, uses groups of wireless nodes to receive and transmit the same signal in order to reliably convey this signal between two points, limitations that Ishii and Monch, alone or in combination, fail to teach or suggest. Specifically, each of amended independent claims 1, 13, 19, and 24, recites a method for reliably passing a signal between first and second points in a wireless network. To perform this reliable communications, the wireless nodes at the second point, for example, form a receive group and select a controlling node from the group. Significantly, when a signal is transmitted from the first point to the second point, each member of the receive group receives this signal and each member passes a representation of this signal to the controlling node. The controlling node then combines the representations of the signal to create a "reliable" signal. In addition, amended independent claim 24 and dependent claims 10, 25, and 22, which depend from claims 1, 13, and 19 respectively, recite that when transmitting a second signal from the second point back to the first point, the controlling node will first transfer a copy of this second signal to each member of the group. Each group member then transmits its copy of this signal to the first point. This first point then combines received representations of the second signal to create a "reliable" signal.

Ishii is directed at subnetworks that each comprise a parent/base host and several mobile hosts and wherein the mobile hosts and the parent host of each subnetwork communicate through an assigned channel. Ishii is only concerned with resolving interferences that can occur between the assigned channels in adjacent subnetworks. However, contrary to applicants' invention as now recited by the amended claims, Ishii does not resolve this interference by combining multiple received representations of a same signal and does not resolve this interference by simultaneously transmitting multiple copies of a same signal and then combining the transmitted copies at the receiving end. Rather, Ishii

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resolves the interference by simply changing the assigned channel in a subnetwork. Specifically, Ishii teaches that in order to detect channel interferences, the parent host in each subnetwork will periodically broadcast control packets on its assigned channel to the mobile hosts in its subnetwork. A mobile host will also send control packets to the parent host to notify it of potential interferences. Interferences between subnetworks are detected based on these control packets. When an interference is detected, a parent host will select a new channel for its subnetwork and broadcast a channel assignment packet to its mobile hosts to inform them to switch to this new channel. (Ishii, column 1, lines 17-28; column 2, lines 51-67; column 3, line 41 to column 5, line 35).

Significantly, Ishii is not directed at using groups of wireless nodes and a controlling node to receive and transmit a signal. While the mobile nodes of Ishii's subnetworks may receive the same broadcast signal from a parent host, Ishii fails to teach or suggest each mobile node then forwarding a representation of its received signal to a controlling node that then combines each representation to create a reliable signal, as now recited by amended independent claim 1, 13, 19, and 24. In addition, contrary to amended claims 10, 22, 24, and 25, nowhere does Ishii teach or suggest a controlling node transferring a copy of the same signal to a group of nodes with each node then transmitting its copy of this signal to another point and this point then combining representations of the received signal to create a reliable signal.

Monch is directed at methods for a calling station to create a radio chain of radio links between itself and a called station. According to Monch, each station in a network maintains a list of stations to which it has a direct radio link. A calling station needing to reach a called station combines these different lists to create a single list and then uses this combined list to determine a radio chain to the called station. (Monch, column 1, line 60 to column 2, line 25; column 4, line 53 to column 5, line 18). Significantly, Monch is not concerned with reliably transferring a signal by having each node within a group of nodes receive a transferred signal and pass a representation of its received signal to a controlling node that then combines these representations to create a reliable signal. Rather, Monch simply teaches stations each transferring a different list to a calling station and this calling station then combining these different lists into one long list. However, such teachings are not applicants' invention as now recited by the amended claims.

Since Ishii and Monch do not teach or suggest applicants' novel methods alone or in combination as now set forth in amended claims 1, 4, 6-9, 13, 19, 22, and 24 and as set forth in newly added claim 25, applicants respectfully request withdrawal of the Final Rejection, entry of this amendment, and favorable reconsideration and allowance of claims 1, 4, 6-9, 13, 19, 22, and 24-25 together with claim 17 indicated as allowable.

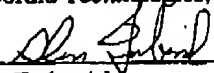
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Applicants believe that this application is now in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner deems it would in any way expedite the prosecution of this application, he is invited to telephone applicants' agent at the number given below.

Respectfully submitted,
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